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GTE Service Corporation
1850 M Street, N.W., Suite 1200
Washington, DC 20036
202 463-5200

April 1, 1996

Mr. William F. Caton
Acting Secretary
Federal Communications Commission
Washington, DC 20554

RE: CC Docket No. 92-256, - Application of ONA and Nondiscrimination Safeguards to GTE Telephone Operating Companies

Dear Mr. Caton:

GTE Service Corporation, on behalf of its affiliated telephone operating companies ("GTE") hereby submits the March 30, 1996 semi-annual reports in accordance with the Commission's Memorandum Opinion and Order in Application of Open Network Architecture and Nondiscrimination Safeguards to GTE Corporation, CC Docket 92-256, released on June 29, 1995.

The Commission directed GTE to file:

(1) A matrix of GTE ONA services and state and federal tariffs.

Attachment A reflects GTE's matrix of ONA services and state and federal tariffs as of January 1, 1996. GTE's state ONA tariffs were filed by January 2, 1996, per the Commission's Order, and have various effective dates. The state ONA service tariff information is not contained in the attached matrix (which is comparable to the tariff reference section of GTE's initial ONA Services User Guide. The next issue of the tariff matrix and the ONA Services User Guide will be updated to reflect the state tariff information. Some services, which have blanks on the matrix, are available outside of actual tariff documents (i.e., contracts, non-regulated documents, Individual Case Basis, concurrence in other company/state tariffs, etc.) due to individual state regulatory guidelines.

(2) An ONA Services User Guide.

GTE's ONA Services User Guide has been developed to be similar with the User Guides published by the Bell Operating Companies. The ONA Services User Guide contains three sections: 1) ONA Services Descriptions and cross references, 2) Tariff References, and 3) Wire Center Deployment.

Attachment B is a printed copy of GTE's initial ONA Services User Guide services descriptions and data regarding state and federal tariffs. This information is also provided on the enclosed diskettes (2 diskettes for the services descriptions and 20 diskettes for the tariff references). Instructions on the use of the enclosed ONA Services User Guide diskettes follows the state and federal tariff data sheets.

GTE did not adequately anticipate the length of time required to process and package the large amount of data contained in the wire center deployment information. GTE's service areas contain over 4000 central offices. GTE divided it's 28 state operating territories into 10 regions. It is taking two to three weeks to process and package the wire center information for each region on diskettes and once this problem was observed GTE increased it's processing capacity. The Florida (2 diskettes), California (3 diskettes), Hawaii (2 diskettes), and Virginia (2 diskettes) regions are completed and enclosed with this filing. The Midwest, Northeast, North, South, Northwest, and Texas/New Mexico regions are currently processing. GTE will file the wire center diskettes for these remaining six regions on or before April 30, 1996.

(3) Updates on ESP service requests, GTE's responses to such requests, and information on services offered in response to such requests.

Attachment C reflects the ONA services offered by GTE that meet a number of the 118 network capability requests made to the Bell Operating Companies by Enhanced Service Providers. GTE has not had any interest expressed from ESPs on any of the outstanding service requests where there is no current GTE ONA service offering.

I may be reached at (202) 463-5291 if further information is needed.

F. G. Maxson
Director - Regulatory Affairs

C: Ms. Rose Crellin
ITS

Attachments

Attachment A

Generic Name of Service		GTE / CONTEL / ALLTEL																										Attachment A	
Abbreviated Name	Code	AL	AR	AZ	CA	FL	HI	IA	ID	IL	IN	KY	MI	MN	MO	NC	NE	NM	NV	OH	OK	OR	PA	SC	TX	VA	WA	WI
Acc To Clr Ch Transmissn	1026	BB	BB	B	BB	BB	BB	B	BB	BB	BB	BB	BB	B	B	BB	BB	BB	B	BB	B	BB	BB	BB	B	BB	BB	BB
Alternate Routing	1041	BB	B	B	B	B	B	B	B	B	B	BB	B	B	B	BB	B	B	B	B	B	B	B	BB	B	BB	B	B
Anonymous Call Rejection	9011					C		C						C								C				C		C
Automatic Callback	1043	C			C	C		C	C	C	C	C		C	C	C	C	C		C		C	C	C		C	C	C
Automatic Protection Switch	1028	BB	BB	B	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB	B	B	BB	BB	BB	BB	BB	BB	BB	BB	BB
Automatic Recall	1044	C			C	C		C	C	C	C	C		C	C	C	C	C		C		C	C	C		C	C	C
Billed Number Screening	9012	BC	B	B	BC	BC	BC	BC	BC	BC	BC	BC	B	BC	BC	BC	BC	BC	B	B	B	BC	BC	BC	B	BC	BC	BC
Bridging	1029	BB	BB	B	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB	B	BB	BB	BB	BB	BB	BB	BB	BB	BB
Busy Number Redial	9001	C			C	C	C	C	C		C	C		C	C	C	C	C		C		C	C	C			C	C
Call Det Recd'g Rpts Pkt	1003				C					C	C	C				C										C		
CFBL Interswitch	1047	C			C		C	C	C	C	C	C		C	C		C	C		C		C	C			C	C	C
CFBL Intraswitch	1046	C			C	C	C	C	C	C	C	C		C	C		C	C		C		C	C	C		C	C	C
CFDA Interswitch	1051	C			C		C	C	C		C	C		C	C		C	C		C		C	C			C	C	
CFDA Intraswitch	1050	C			C	C	C	C	C	C	C	C		C	C		C	C		C		C	C	C		C	C	C
CF Fixed	9007	C			C	C	C	C	C	C	C			C	C	C	C	C				C		C		C	C	C
CF Mult Sim Call Intersw	1052	C				C	C					C				C		C					C	C				
CF Variable	1053	C			C	C	C	C	C	C	C	C		C	C	C	C	C				C		C		C	C	C
CF Var Act w/o Crtsy Cal	1054				C		C	C		C	C			C	C	C	C	C				C					C	C
CF Var Remote Act/Cntrol	1055				C	C	C																				C	
CFBL/DA Fixed	9008	C			C	C	C		C	C	C	C		C	C		C	C		C		C	C	C		C	C	C
CFBL/DA Cust Act/Deact	1048				C		C		C	C	C	C			C		C	C		C		C	C			C	C	C
CFBL/DA Cust Fwd To No.	1049				C		C		C	C	C	C			C		C	C		C		C	C			C	C	C
Call Restriction	9017	C			C	C	C	C	C	C	C				C			C		C		C	C	C		C	C	C
Call Waiting	9004	C			C	C	C	C	C	C	C	C		C	C	C	C	C		C		C	C	C		C	C	C
Call Waiting Cancel	1056	C			C	C	C	C	C	C	C	C				C	C	C		C		C	C	C		C	C	C
Clid DN Deliv via DID	1057	BB	B	B	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB	B	BB	B	BB	BB	BB	B	BB	BB	BB
Clg Blg Num Deliv FG B	1060	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
Clg Blg Num Deliv FG D	1061	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
Clg DN Deliv via ICLID	1064	BC	B	B	BC	BC	B	BC	BC	BC	B	BC	B	BC	BC	BC	BC	BC	B	BC	B	BC	B	BC	BC	BC	BC	BC
Cxr Select On Rvrs Charg	1065	BB	BB	B	BB	BB	BB	BB	BB	BB	BB	BB	B	BB	BB	BB	BB	BB	B	BB	BB	BB	BB	BB	BB	BB	BB	BB
C1 Typ A - Ckt Sw Line	1039	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
C1 Typ B - Ckt Sw Trunk	1040	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
C2 Typ A - X.25 Pkt Sw	1001				AA	AA	A			AA	AA	AA				AA				A		AA	AA		A	AA	AA	
C2 Typ B - X.75 Pkt Sw	1002				AA	AA	A			AA	AA	AA				AA				AA		AA	AA		AA	AA	AA	
C3 Typ C - Ded Voice Grd	1017	AA	AA		AA	AA	A	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA		AA	AA	AA	AA	AA	AA	AA	AA	AA
C3 Typ D - Ded Prgm Audio	1018	AA	AA		AA	AA	A	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA		AA	AA	AA	AA	AA	AA	AA	AA	AA
C3 Typ E - Ded Video	1019	A			AA	AA	A	A	A	AA	AA	A	A	A	A	A	A			A		A	A	A	AA	A	AA	A
C3 Typ F - Ded <64kbps	1020	AA	AA		AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA		AA	AA	AA	AA	AA	AA	AA	AA	AA
C3 Typ G - Ded 1.544Mbps	1021	AA	AA		AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA		AA	AA	AA	AA	AA	AA	AA	AA	AA
C3 Typ H - Ded >1.544Mbps	1022	A	AA		AA	A	A	A	AA	AA	AA	AA	AA	A	A	A	AA	AA		AA	A	AA	A	AA	AA	A	AA	AA
C3 Typ I - Ded Alrt Trnsp	1023	A	A	A	AA	AA	A	A	AA	A	A	A	A	A	A	A	A	AA	A	A	A	A	A	A	A	A	AA	A
C3 Typ K - Ded 64 kbps	1037	A	AA		AA	AA	AA	A	A	AA	AA	AA	AA	A	A	A	A	A		AA	A	A	AA	A	AA	A	A	AA
C4 - Ded Ntwk Accss Link	1025	AA	A	A	AA	AA	AA	A	AA	AA	AA	AA	A	A	A	AA	A	AA	A	A	A	AA	AA	AA	A	AA	AA	AA
Conditioning	1030	BB	BB	B	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB	B	BB	BB	BB	BB	BB	BB	BB	BB	BB
ControlLink DCS	9024	BB	B	B	BB	BB	BB	B	B	BB	BB	BB	B	B	BB	B	B	B	B	BB	B	BB	BB	BB	B	BB	BB	BB

GTE / CONTEL / ALLTEL

Generic Name of Service Abbreviated Name	Code	AL	AR	AZ	CA	FL	HI	IA	ID	IL	IN	KY	MI	MN	MO	NC	NE	NM	NV	OH	OK	OR	PA	SC	TX	VA	WA	WI
Cust Controllable Ringing	9023	C			C	C	C			C	C	C				C		C		C		C	C	C			C	
Cust Originated Trace	1066				C	C		C	C	C		C		C	C		C	C		C		C	C			C	C	C
Data Over Voice (DOV)	1031		BB		B	B	B					B				B		B			B	B		B	B	B	B	
Derived Ch (Monitoring)	1032				C																							
Distinctive Ringing	1068	C			C	C		C	C	C	C	C		C	C	C	C	C		C		C	C	C		C	C	C
Dist Ring Term Screen	1069	C			C	C	C	C	C	C	C	C		C	C	C	C	C		C		C	C	C		C	C	C
Fast Select Accept Pkt	1007				BC	B	B			BD	BD	B				B				BB		B	BB		BB	B	B	
Fast Select Request Pkt	1008				BC	B	B			BD	BD	B				B				BB		B	BB		BB	B	B	
GTE Dial DataLink	9021	C			C	C	C	C	C	C	C	C			C	C	C	C		C		C		C		C	C	C
Hot Line	1070	C			C	C		C	C	C	C		C	C				C		C			C	C			C	C
Last Number Redial	9003	C			C	C	C	C	C	C	C	C		C	C	C	C	C		C		C	C	C			C	C
MegaConnect (SMDS)	9020				BB	BB	B					B				B						BB				BB	BB	
Message Desk (SMDI)	1072	BB	B	B	BB	BB	BB	B	BB	BB	BB	BB	B	BB	BB	BB	BB	BB	B	BB	B	BB	BB	BB	B	BB	BB	BB
MWI Activation (ARB)	9022	BB	B	B	BB	BB	BB	BB	B	BB	BB	BB	B	B	BB	BB	B	BB	B	BB	B	BB	BB	BB	B	B	BB	BB
MWI Activation (Audible)	1075	BB	B	B	BB	BB	BB	BB	BB	BB	BB	BB	B	BB	BB	BB	BB	BB	B	BB	B	BB	BB	BB	B	BB	BB	BB
MWI ATR Audible Msg Wtg	9019	C			C	C	C			C	C	C				C		C					C	C			C	C
Multiline Hunt Group	1077	BB	BB	B	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB	B	BB	B	BB	BB	BB	BB	BB	BB	BB
MLHG UCD With Queuing	1082	BB	B	B	BB	BB	BB	BB	BB	BB	BB	BB	B	BB	BB	BB	BB	BB	B	BB	B	BB	BB	BB	B	BB	BB	BB
MLHG UCD Line Hunting	1081	B	BB	B	BB	B	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB	B	BB	B	BB	BB	B	BB	BB	BB	BB
Multiplexing Arrangements	9014	BB	BB	B	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB	B	BB	BB	BB	BB	BB	BB	BB	BB	BB
MWI ARB Audible Msg Wtg	1073	C			C	C	C	C	C	C	C	C		C	C	C		C		C			C	C		C	C	C
Priority Packet	9018				B					B	B												B		B	B		
Remote Call Forwarding	9006	BC	BC	B	BC	BC	BC	BC	BC	BC	BC	BC	B	BC	BC	BC	BC	BC	B	BC	B	BC	BC	BC	B	BC	BC	BC
Route Diversity	1096	B	BB	B	BB	B	BB	B	BB	BB	BB	B	BB	B	B	B	B	BB	B	BB	BB	BB	BB	B	B	B	BB	BB
Saved Number Redial	9002	C			C	C	C	C	C	C	C	C		C	C	C	C	C		C		C	C	C			C	C
Secondary Ch Capability	1034	BB	B		BB	BB	BB		B			BB				B		B			B	B		BB	B	BB	B	
Selective Call Forward'g	1084	C			C	C		C	C	C	C	C		C	C	C	C	C		C		C	C	C		C	C	C
Selective Call Rejection	1085	C			C	C		C	C	C	C	C		C	C	C	C	C		C		C	C	C		C	C	C
Signaling Arrangements	9015	BB	BB	B	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB	B	BB	BB	BB	BB	BB	BB	BB	BB	BB
Special Call Acceptance	9010	C			C	C		C		C	C	C		C	C	C	C	C		C		C	C	C		C	C	C
Special Call Waiting	9009	C			C	C		C	C	C	C	C			C	C	C	C		C		C	C	C			C	C
Speed Calling	1087	C			C	C	C	C	C	C	C	C		C	C	C	C	C		C		C	C	C		C	C	C
Three Way Call Transfer	1089	BB	B	B	BB	BB	BB	B	BB	BB	BB	BB	B	BB	BB	BB	BB	BB	B	BB	B	BB	BB	BB	B	BB	BB	B
Three Way Calling	9005	C			C	C	C	C	C	C	C	C		C	C	C		C		C		C	C	C		C	C	C
Unif 7D Acc Num RCF	1090	BB	B	B	BB	BB	BB	BB	BB	BB	BB	B	BB	BB	BB	BB	BB	BB	B	BB	B	BB	BB	BB	B	BB	BB	BB

Abbreviations:
A=BSA
B=BSE
C=CNS
D=BSE/CNS

Under each state abbreviation the left column contains FCC tariff information and the right column contains state tariff information

Attachment B

GTE Telephone Operations

Services Descriptions
ONA Services User Guide

January 31, 1996

ONA Services
Names, Descriptions, Cross References

FOREWORD

Attached is the Services Descriptions section of the ONA Services User Guide.

The Services Descriptions section of the ONA Services User Guide represents an industry agreement for uniform names and technical descriptions of the Basic Serving Arrangements (BSAs), Basic Service Elements (BSES) and Complementary Network Services (CNS) that relate to the ESP requests. For each service listed, a table is provided that gives an indication of the GTE product name, and whether GTE classifies the service as a BSA, BSE or CNS.

The BSAs are listed in the following four categories of Basic Serving Arrangements:

- o Circuit Switched Serving Arrangements
  A circuit switched basic serving arrangement (BSA) provides an enhanced service provider (ESP) with a connection to the circuit switched network.

- o Packet Switched Serving Arrangements
  A packet switched BSA provides an ESP with a connection to the packet switched network.

- o Dedicated Serving Arrangements
  A dedicated BSA provides an ESP with a dedicated point-to-point connection through the network.

- o Dedicated Network Access Link Serving Arrangements
  A dedicated network access link (DNAL) BSA provides a dedicated data channel between the ESP's termination and a designated central office which contains the specific features required by the ESP. The DNAL is used to transmit control information from the ESP to the network or to deliver information from the network to the ESP.

Following the BSAs are the BSEs and CNS, which are listed in alphabetical order in the above four BSA categories.. A description of each BSE or CNS is provided, which includes a brief technical description and a table listing the product name.

Appendix 1 contains a set of descriptions of ONA services that are offered by GTE and may not be offered by other local exchange carriers. Included is a technical description and a table with the product name for the service.

This report does not supersede any information provided in GTE's ONA plan. All capabilities described are not available in all switching or transmission systems. Generic descriptions are intended for informational purposes and their existence does not imply that specific products and/or services are necessarily tariffed and/or available in any or all state/federal jurisdictions within GTE's service area. The BSAs, BSEs and CNSs identified in this report cannot be ordered until appropriate tariffs are effective. Some ONA services may not be tariffed in all areas.

References to switching system generics that have not yet been released by the vendors are based on our current information about which features are planned for inclusion in those generic releases. If the vendors change the availability of any features for future generic releases that are referenced in this document, the availability of some services may be affected.

Technical references that are publicly available are listed for each service, where available. Ordering information for each of the technical references may be found in the ***Bellcore Digest of Technical Information***. To order, call 1-800-521-2673 toll free from anywhere in the USA.; call (908) 699-5800 for foreign calls; fax (908) 336-2559.

Questions on this report should be directed to the GTE Information Industry Team at:

GTE Telephone Operations
Information Industry Team
Attention: Mike Drew
P.O. Box 152092, HQE02G18
Irving TX 75015-2092
Phone: (214) 718-5215
FAX: (214) 718-2398
Email: mike.drew@telops.gte.com

Table of Contents - ONA Services Descriptions

BSA Descriptions

BSE and CNS Descriptions

BSA Descriptions

BSAs have been arranged into four categories:

1. Circuit Switched
2. Packet Switched
3. Dedicated
4. Dedicated Network Access Link

Each category may have several types. Following are descriptions of the BSA categories and the associated BSA types.

BSA Descriptions

1. Category 1 - Circuit Switched BSA

A circuit switched basic serving arrangement (BSA) provides an enhanced service provider (ESP) with a connection to the circuit switched network. This BSA is capable of supporting analog signals of approximately 300 to 3000 Hz or a circuit switched digital interface with a call type of digital encoded voice, 3.1 kHz or 7 kHz audio, 56 kbps or 64 kbps data transmission.

This BSA may also transmit voice grade analog data. The transmission interface may be 2-wire or 4-wire, or derived from a variety of multiplexing alternatives (for example, Digital Signal (DS) level 0 from DS level 1, or DS1 from DS3).

This BSA may support one-way or two-way directionality. Calls are set up and taken down on a call by call basis. The transport/usage element could be intra-office or inter-office.

Route diversity may be available with this serving arrangement.

1.1 Category 1, Type A - Circuit Switched Line BSA

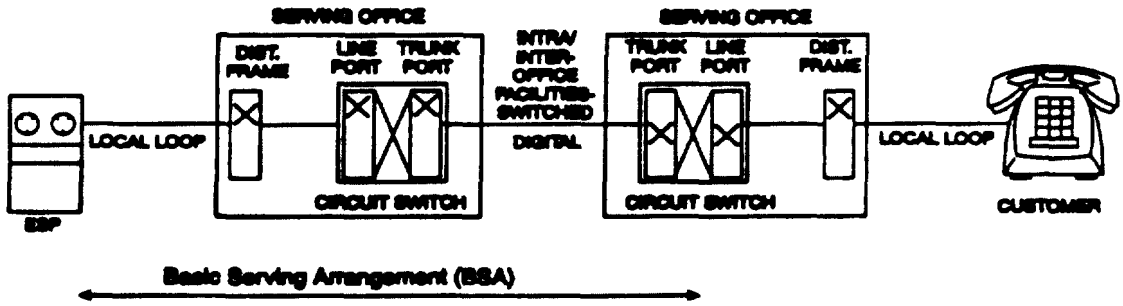
A circuit switched line BSA provides an ESP with a line side connection to the circuit switched network.

This line side connection could include alternative types of network connection, address and supervisory in-band or out-of-band signaling. Examples of network connections are standard telephone line or a line side type connection (e.g., PBX service). This BSA may support one-way or two-way directionality on a 2-wire or 4-wire transmission interface.

Calls are set up and taken down on a call by call basis. The calling scope may include, for example, an entire Local Access and Transport Area (LATA), a market area or be limited to all or part of a metropolitan area. Directory numbers are assigned from the North American Numbering Plan without any special routing or other use of the number.

Generic Name of BSA	GTE BSA Name
Category 1, Type A - Circuit Switched Line BSA	BSA-A

Voice Grade – Line – Circuit Switched — BSA



Alternatives:

An alternative is an item that must be selected for the BSA to be technically meaningful. Alternative items may be available from some or all of the Local Exchange Carriers (LECs). Refer to the individual LEC tariff reference diskette for the reference information where LEC defined alternatives may be found. Examples of potential alternatives may be: Service Code Denial and Uniform Call Distribution.

Signaling:

Signaling arrangements extend line circuit or signaling circuit alerting information on metallic or fiber facilities from one customer premises location to another customer premises location. The signaling arrangement can be terminated on trunk-like or line side interfaces of the LEC switch. Examples of address signaling on an analog interface are dial pulse or dual tone multifrequency (DTMF) with supervisory signaling of loop start or ground start. A digital interface will offer address and supervisory signaling via an out-of-band standardized protocol.

Transmission:

The subject of transmission covers a broad range of performance considerations related to the physical facilities that compose network architecture. Transmission parameters are designed to provide objective transmission performance characteristics, as perceived by the end user and LEC, between the point of termination. Transmission parameters are defined for each Network Interface (see below) supporting this BSA. These parameters are defined in the reference documentation.

Network Interfaces:

The electrical and physical interface with the LEC is described by a Network Channel Interface (NCI) code for each end user termination and each service provider termination. NCI codes are provided to aid the user in understanding the relationship of the network interface to the electrical or optical characteristics of the interface. NCI codes have four basic components: (1) number of conductors (wire or fibers), (2) protocol code, (3) nominal reference impedance code, and (4) any applicable protocol options.

References:

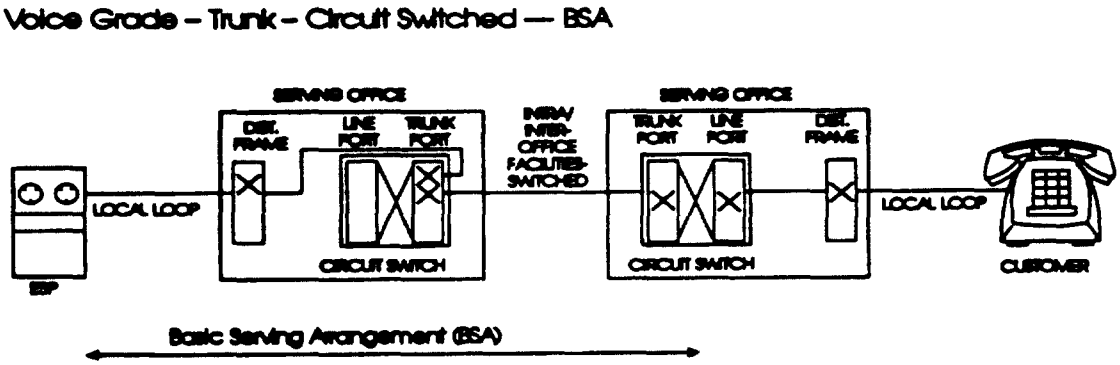
o TR-NWT-000334, Switched Access Service: Transmission Parameter Limits and Interface Combinations, Issue 3, March 1993

1.2 Category 1 - Circuit Switched Trunk BSA

A circuit switched trunk BSA provides an enhanced service provider (ESP) with a trunk side connection to the circuit switched network.

Various types of network connections, address signaling and supervisory signaling are available. An example of network connections to the serving office may be direct trunk or a tandem connection. Calls are set up and taken down on a call-by-call basis. Different access arrangements, based on the North American Numbering Plan, are available from the Local Exchange Carriers (LEC). This BSA may support one-way or two-way directionality.

Generic Name of BSA	GTE BSA Name
Category 1, Type B - Circuit Switched Trunk BSA	BSA-B BSA-C BSA-D



Alternative:

An alternative is an item that must be selected for the BSA to be technically meaningful. Alternative items may be available from some or all of the LECs. Refer to the individual LEC tariff reference diskette for the reference information where LEC defined alternatives may be found. Examples of potential alternatives may be: Service Class Routing, Dial Pulse Address Signaling, and Cut Through.

Signaling:

Signaling arrangements extend trunk circuit or signaling circuit alerting information on metallic or fiber facilities from one customer premises location to another customer premises location. These signals are the means by which the end user initiates a request for service, holds a connection or releases a connection. The signaling arrangements can be terminated on line-like or trunk side interfaces of the LEC switch. Examples

of point-of-termination supervisory signaling arrangements that may be ordered are Multi-Frequency (in-band), Signaling System 7 (SS7) (out of band), reverse battery and E&M.

Transmission:

The subject of transmission covers a broad range of performance considerations related to the physical facilities that compose network architecture. Transmission parameters are designed to provide objective transmission performance characteristics, as perceived by the end user and LEC, between the point of termination. Transmission parameters are defined for each Network Interface (see below) supporting this BSA. These parameters are defined in the reference documentation.

Network Interfaces:

The electrical and physical interface with the LEC is described by a Network Channel Interface (NCI) code for each end user termination and each service provider termination. NCI codes are provided to aid the user in understanding the relationship of the network interface to the electrical or optical characteristics of the interface. NCI codes have four basic components: (1) number of conductors (wire or fibers), (2) protocol code, (3) nominal reference impedance code, and (4) any applicable protocol options.

References:

- TR-NWT-000334, Switched Access Service: Transmission Parameter Limits and Interface Combinations, Issue 3, March 1993
- TR-TSY-000698 Feature Group B FSD 20-24-0300, Issue 1, June 1989, Rev. 1, July 1990
- LSSGR (FR-NWT-000064), FSD 20-24-0000, IC/INC Interconnection, Issue 1, March 1991, Module TR-TSY-000690
- TR-NPL-000258 Compatibility Information for Feature Group D Switched Access Service, Issue 1, October 1985.
- SR-NPL-001321 Connection Setup Time for Feature Group D and Termination Feature Group B, Special Report, Issue 1, February 1989.

References for SS7:

- TR-TSV-000905 Common Channel Signaling (CCS) Network Interface Specification, Issue 1, August 1989
- TR-NWT-000394 Switching System Generic Requirements for Interexchange Carrier Interconnection Using the Integrated Services Digital Network User Part (ISDNUP), Issue 4, December 1992

References for Signaling Arrangements:

- TA-NPL-000912 Compatibility Information for Telephone Exchange Service, Issue 1, February 1989.
- SR-TSV-002275 BOC Notes on the Networks - 1990, Issue 1, March 1991.

2. Category 2 - Packet Switched Basic Serving Arrangement

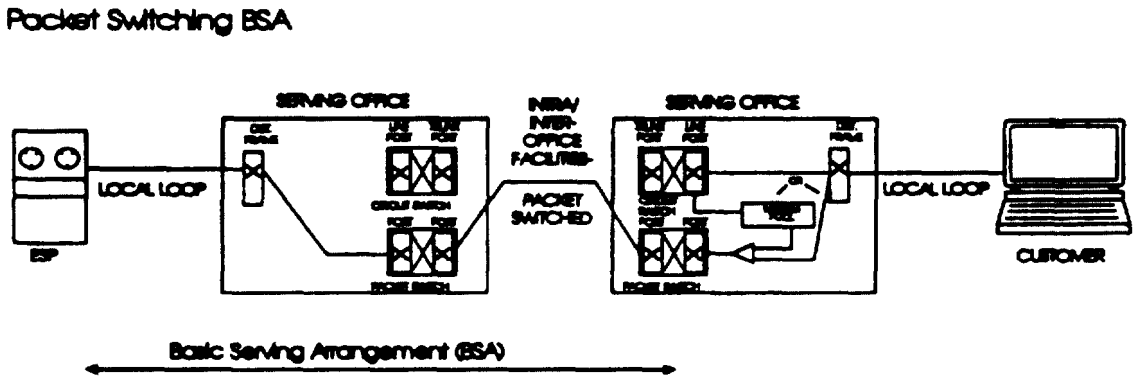
A packet switched BSA provides an ESP with a connection to the packet switched network via virtual and permanent virtual circuit connections. This BSA is capable of supporting analog or digital signals of various transmission rates. The transmission interface may be 2-wire or 4-wire, or derived from a variety of multiplexing alternatives (for example, Digital Signal (DS) level 0 from DS level 1, or DS1 from DS3).

2.1 Category 2, Type A - X.25 Packet Switched BSA

The Type A Packet Switched BSA provides an ESP with X.25 or X.31 access to the GTE packet switching network via virtual and permanent virtual circuit connections. This interface conforms to Recommendations X.25 and X.31 of the International Telecommunication Union-Telecommunication Standardization Sector (ITU-TS) (formerly the International Telegraph and Telephone Consultative Committee [CCITT]).

X.25 includes physical, link and packet level procedures. At the physical level, data signaling rates of 1.2, 2.4, 4.8, 9.6 and 56 kbps are supported. The link level protocol supported at the interface is Link Access Protocol Balanced (LAPB). The main functions of the link level protocol are to ensure that the packets cross the Data Terminal Equipment/Data Communications Equipment (DTE/DCE) interface essentially error free and reach their destination in a correctly transmitted sequence. The network level access protocol provides the procedures required to set up, maintain and clear virtual calls. X.31 defines the recommended procedures for using Q.931 protocol to establish digital customer premises equipment (CPE) calls to a packet network in accordance with defined bearer services.

Generic Name of BSA	GTE BSA Name
Category 2, Type A - X.25 Packet Switched BSA	Packet Switching Network Service - X.25



Alternatives:

An alternative is an item that must be selected for the BSA to be technically meaningful. Alternative items

may be available from some or all of the Local Exchange Carriers (LECs). Refer to the individual LEC tariff reference diskette for the reference information where LEC defined alternatives may be found. Examples of potential alternatives may be: Logical Channel, Flow Control Parameters, and Multiple Network Addresses.

Signaling:

Signaling arrangements extend alerting information on metallic or fiber facilities from one customer premises location to another customer premises location. Dial (circuit-switched) access provides low- to moderate-throughput Public Packet Switched Network (PPSN) access through the voice telephone network. With dial-in access, a customer terminal and modem are attached to the Public Switched Telephone Network (PSTN) loop. The customer dials a North American Numbering Plan (NANP) address and the PSTN routes the call to a PPSN dial-up port. The PPSN answers the call with a modem supporting one of several modem protocols.

With dial-out access, a call is routed to a PPSN interface supporting dial-out service. At this interface, the access concentrator obtains the NANP address and uses the ITU-TS (formerly CCITT) V.25 calling procedures to instruct the PPSN modem to establish a physical connection with the customer via the PSTN. Dedicated (nonswitched) access provides the customer with continuously available interfaces to the PPSN.

Transmission:

The subject of transmission covers a broad range of performance considerations related to the physical facilities that compose network architecture. Transmission parameters are designed to provide objective transmission performance characteristics, as perceived by the end user and LEC, between the point of termination. Transmission parameters are defined for each Network Interface (see below) supporting this BSA. These parameters are defined in the reference documentation.

Network Interfaces:

The electrical and physical interface with the LEC is described by a Network Channel Interface (NCI) code for each end user termination and each service provider termination. NCI codes are provided to aid the user in understanding the relationship of the network interface to the electrical or optical characteristics of the interface. NCI codes have four basic components: (1) number of conductors (wire or fibers), (2) protocol code, (3) nominal reference impedance code, and (4) any applicable protocol options.

References:

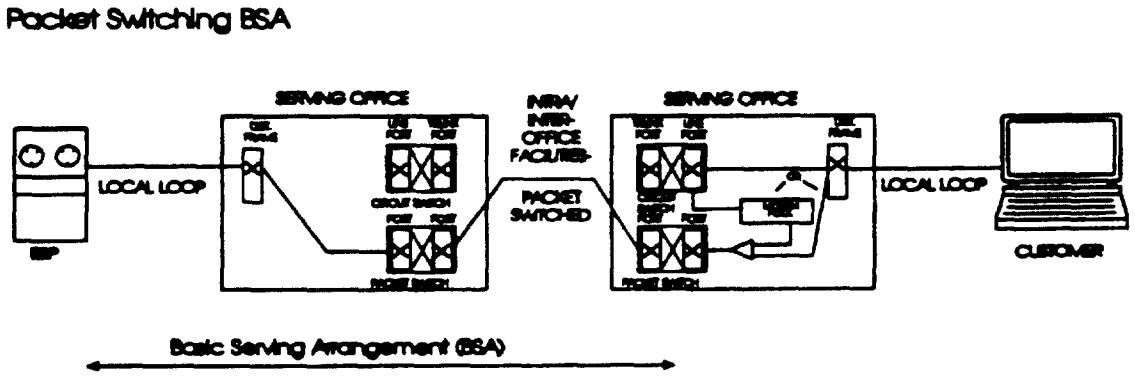
- PPSNGR TR-TSY-301 Public Packet Switched Network Generic Requirements, Issue 2, December 1988, Bulletin 1, December 1989, Supplement 1, May 1990, Revision 1, May 1992
- TR-TSY-000462 Public Packet Switched Network (PPSN) X.25 Interface Description, Issue 1, June 1987
- TR-NPL-000011 Asynchronous Terminal and Host Interface Reference, Issue 1, March 1985

2.2 Category 2, Type B - X.75 Packet Switched BSA

The Type B Packet Switched BSA provides an ESP with X.75 access to the GTE packet switching network. The X.75 interface conforms to Recommendation X.75 of the International Telecommunication Union-Telecommunication Standardization Sector (ITU-TS) (formerly the International Telegraph and Telephone Consultative Committee [CCITT]).

X.75 includes physical, link and packet level procedures. At the physical level data signaling rates of 9.6 kbps are supported over analog or digital facilities. Speeds of 56 kbps are supported over digital facilities only. The link level protocol supported at the interface is Link Access Protocol Balanced (LAPB). The main functions of the link level protocol are to ensure that the packets cross the network interface essentially error free and reach their destination in a correctly transmitted sequence. The network level access protocol provides the procedures required to set up, maintain and clear virtual calls.

Generic Name of BSA	GTE BSA Name
Category 2, Type B - X.75 Packet Switched BSA	Packet Switching Network Service - X.75



Alternatives:

An alternative is an item that must be selected for the BSA to be technically meaningful. Alternative items may be available from some or all of the Local Exchange Carriers (LECs). Refer to the individual LEC tariff reference diskette for the reference information where LEC defined alternatives may be found. Examples of potential alternatives may be: Logical Channel, Flow Control Parameters, and Multiple Network Addresses.

Signaling:

Signaling arrangements extend alerting information on metallic or fiber facilities from one customer premises location to another customer premises location. Dial (circuit-switched) access provides low- to moderate-throughput Public Packet Switched Network (PPSN) access through the voice telephone network.

With dial-in access, a customer terminal and modem are attached to the Public Switched Telephone Network (PSTN) loop. The customer dials a North American Numbering Plan (NANP) address and the PSTN routes the call to a PPSN dial-up port. The PPSN answers the call with a modem supporting one of several modem protocols.

With dial-out access, a call is routed to a PPSN interface supporting dial-out service. At this interface, the access concentrator obtains the NANP address and uses the ITU-TS (formerly CCITT) V.25 calling procedures to instruct the PPSN modem to establish a physical connection with the customer via the PSTN. Dedicated (nonswitched) access provides the customer with continuously available interfaces to the PPSN.

Transmission:

The subject of transmission covers a broad range of performance considerations related to the physical facilities that compose network architecture.

Transmission parameters are designed to provide objective transmission performance characteristics, as perceived by the end user and LEC, between the point of termination. Transmission parameters are defined for each Network Interface (see below) supporting this BSA. These parameters are defined in the reference documentation.

Network Interfaces:

The electrical and physical interface with the LEC is described by a Network Channel Interface (NCI) code for each end user termination and each service provider termination. NCI codes are provided to aid the user in understanding the relationship of the network interface to the electrical or optical characteristics of the interface. NCI codes have four basic components: (1) number of conductors (wire or fibers), (2) protocol code, (3) nominal reference impedance code, and (4) any applicable protocol options.

References:

- PPSNGR TR-TSY-301 Public Packet Switched Network Generic Requirements, Issue 2, December 1988, Bulletin 1, December 1989, Supplement 1, May 1990, Revision 1, May 1992
- TR-NPL-000011 Asynchronous Terminal and Host Interface Reference, Issue 1, March 1985
- TR-TSY-000461 X.75 Interfaces to BOC/IDC Network, Issue 1, June 1987

3. Category 3 - Dedicated Basic Serving Arrangement

A dedicated BSA provides an ESP with a dedicated point-to-point connection through the network. This category of serving arrangements are available full-time so that individual calls are not set up and taken down. This BSA is capable of supporting analog or digital signals at various transmission rates.

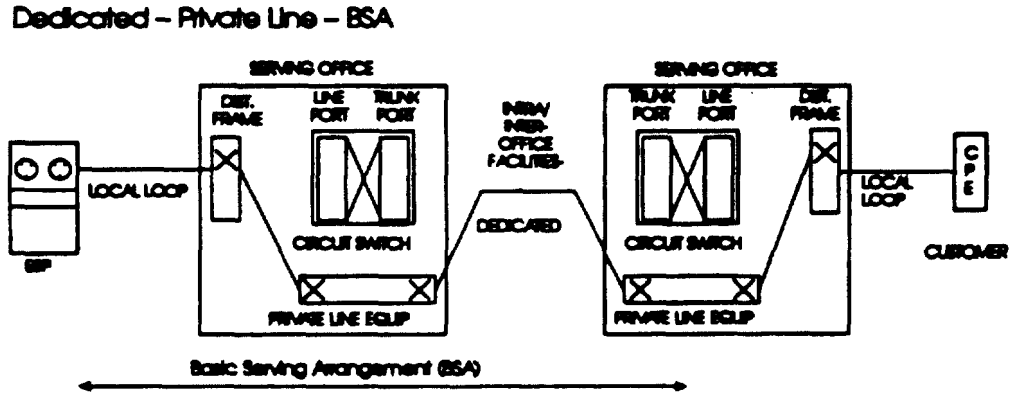
The transmission interface may be 2-wire or 4-wire, or derived from a variety of multiplexing alternatives (for example, Digital Signal (DS) level 0 from DS level 1, or DS1 from DS3). It is also capable of providing supervisory signaling in some configurations.

Route diversity may be available with this serving arrangement.

3.1 Category 3, Type C - Dedicated Voice Grade BSA

The dedicated voice grade BSA provides an ESP with a dedicated connection through the network to the ESP's client. This BSA is capable of supporting the transmission of analog signals within an approximate bandwidth of 300-3000 Hz. The transmission interface may be 2-wire or 4-wire. Voice grade services are provided between service provider designated premises through service wire centers or between a service provider designated premises and a telephone company hub. It is capable of providing various supervisory signaling alternatives.

Generic Name of BSA	GTE BSA Name
Category 3, Type C - Dedicated Voice Grade BSA	Voiceband



Alternatives:

An alternative is an item that must be selected for the BSA to be technically meaningful. Alternative items may be available from some or all of the Local Exchange Carriers (LECs). Refer to the individual LEC tariff reference diskette for the reference information where LEC defined alternatives may be found. Examples of potential alternatives may be: transfer arrangement, improved termination, data capability, telephoto capability, and signaling capabilities.

Signaling:

Signaling capability provides for the process by which one customer premises alerts another customer premises on the same service with which it wishes to communicate. These signals are the means by which the end user initiates a request for service, holds a connection or releases a connection. Examples of signaling arrangements are: loop-start, ground-start, E&M, and reverse-battery.

Transmission:

The subject of transmission covers a broad range of performance considerations related to the physical facilities that compose network architecture. Transmission parameters are designed to provide objective transmission performance characteristics, as perceived by the end user and LEC, between the point of termination. Transmission parameters are defined for each Network Interface (see below) supporting this BSA. These parameters are defined in the reference documentation.

Network Interfaces:

The electrical and physical interface with the LEC is described by a Network Channel Interface (NCI) code for each end user termination and each service provider termination. NCI codes are provided to aid the user in understanding the relationship of the network interface to the electrical or optical characteristics of the interface. NCI codes have four basic components: (1) number of conductors (wire or fibers), (2) protocol code, (3) nominal reference impedance code, and (4) any applicable protocol options.

References:

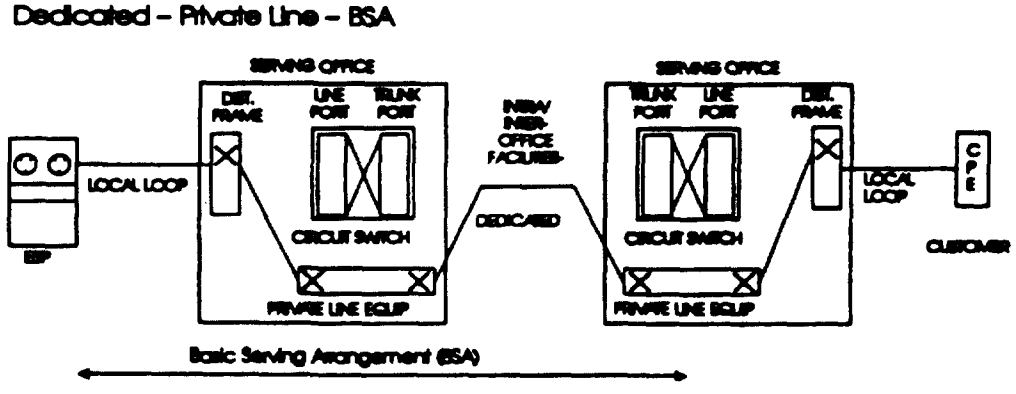
- TR-NWT-000335 Voice Grade Special Access Services - Transmission Parameter Limits and Interface Combinations, Issue 3, May 1993
- TR-TSY-000965 IntraLATA Voice Grade Private Line Services Transmission Parameter Limits and Interface Combinations, Issue 1 - October 1989, Revision 1 - December 1989
- TR-INS-000342 High-Capacity Digital Special Access Service - Transmission Parameter Limits and Interface Combinations, Issue 1, February 1991.

3.2 Category 3, Type D - Dedicated Program Audio BSA

Service Description:

The dedicated program audio BSA provides an ESP with a one-way non-switched channel to the ESP's client that can pass an analog signal up to 15000 Hz. This serving arrangement is usually provided for transmission of music, but it is capable of voice and data within the band pass limits. Nominal frequency bandwidths for this serving arrangement are: 50 to 15000 Hz, 200 to 3500 Hz, 100 to 5000 Hz, 300 to 2500 Hz, or 50 to 8000 Hz.

Generic Name of BSA	GTE BSA Name
Category 3, Type D - Dedicated Program Audio BSA	Program Audio



Alternatives:

An alternative is an item that must be selected for the BSA to be technically meaningful. Alternative items may be available from some or all of the Local Exchange Carriers (LECs). Refer to the individual LEC tariff reference diskette for the reference information where LEC defined alternatives may be found. Examples of potential alternatives may be: stereo and gain conditioning.

Signaling:

Program Audio services are available full-time and therefore signaling arrangements are not applicable.